UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Date: July 31, 1995

Identification Number: NJD002005106
Site Name: Universal Oil Products(Chemical Division
Region: 2

This notice is included in the Hazard Ranking System package located within each Regional docket and the Headquarters docket to clarify what the National Priorities Site, Universal Oil Products(Chemical Division, represents. This has been added to ensure that the listing is consistent with policy.

When a site is listed, it is necessary to identify or define the release (or releases) encompassed within the listing. The approach generally used is to delineate a geographical area (usually the area within the installation or plant boundaries) and define the site by reference to that area. As a legal matter, the site is not coextensive with that area, and the boundaries of the installation or plant are not the "boundaries" of the site. Rather, the site consists of all contaminated areas within the area used to define the site, and any other location to which contamination from that area has come to be located.

While geographic terms are often used to designate the site (e.g., the "Jones Co. plant site") in terms of the property owned by the particular party, the site properly understood is not limited to that property (e.g., it may extend beyond the property due to contaminant migration), and conversely may not occupy the full extent of the property (e.g., where there are uncontaminated parts of the identified property, they may not be, strictly speaking, part of the "site"). The "site" is thus neither equal to nor confined by the boundaries of any specific property that may give the site its name, and the name itself should not be read to imply that this site is coextensive with the entire area within the property boundary of the facility or plant. The precise nature and extent of the site are typically not known at the time of listing.

334131

UNIVERSAL OIL PRODUCTS (CHEMICAL DIVISION)
East Rutherford, New Jersey

Conditions at listing (December 1982): Universal Oil Products (Chemical Division) once manufactured specialty chemicals on an 85-acre site in East Rutherford, Bergen County, New Jersey. The company razed the plant in 1980. Waste solvents and solid chemical wastes were dumped into two unlined lagoons, which were later filled in. Surface water, ground water, and a large quantity of soils are contaminated. Ground water provides process cooling water to industry and drinking water to residents of Wallington Township.

The site is in the coastal wetland management area of the Hackensack River Basin. It is bordered on the southeast by Berry's Creek; one of its tributaries, Ackerman's Creek, passes through the site. Berry's Creek joins the Hackensack River about 3.5 miles downstream. Surface waters are used for recreation.

Status (July 1983): An Administrative Order and Directive Letter to conduct a remedial investigation was issued to the site owners.

August 16, 1982

FIT QUALITY ASSURANCE TEAM

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: VOP - Universal Oil Products - Chem Div.

LOCATION: Rt 17, E. Rutherford, NJ (Bergen Cty)

DATE SCORED: Rescored / Corrected April 5, 1983

PERSON SCORING: Paul M. Friedman

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):
1. Documentation Package from Orgional Scoring
2. Site Inspection Report
3. Bem report to Mr. Ronald H. Demaria
4. Assessment of Hydrogeologic Connection Between UOP East Rutherford, NJ Property and the Brunswick Formation by Geraghty & Miller, Inc. — William H. McTigue, PE - Feb 83

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

5. Preliminary Hydrogeological Investigation Found VOP Chemical Div. Plant Site, East Rutherford, NJ by Ground/Water Tech., Inc. - William H. McTigue & July 6, 1981 and references contained therein.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):
Compounds detected in shallow wells - Not in aquifer of concern - Chloroform, Benzene, Toluene, Mercury

Rationale for attributing the contaminants to the facility:
Results of soil boring & water analysis
- See BCA Report
- Inspection Report

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:
~~90~~ Brunswick Formation - till directly above rock

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:
90 ft. = 1

Depth from the ground surface to the lowest point of waste disposal/ storage:
Surface

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

44" water annual

Mean annual lake or seasonal evaporation (list months for seasonal):

32" - water annual

Net precipitation (subtract the above figures):

12" = 2

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

varved silt and clay (annual deposition of fine & coarse)

Permeability associated with soil type:

I

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Spills of solvents / 3

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3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

lagoons
Spillages

Method with highest score:

Spillage = 3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:	Tox	Pers.
chloroform	3	3
Benzene	3	2
Toluene	2	2

Compound with highest score:

Chloroform

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Ref: DEP Comments: Page 5. .01% of the total ~~solid waste~~ ~~gross~~ represent 1000 – 2500 BBL. Therefore, total waste in excess of 10,000 drums

Basis of estimating and/or computing waste quantity:

- manifests of shipment of wastes off-site after cessation of use of lagoons - 1974 were 160,000 gal in 1979. Discharge at less than 25% of that yearly rate at the site would bring the total discharge of waste onto site in excess of 10000 drums. = 8

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5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Drinking water / Industrial - use at depth of wells in area of Wallington & Lodi. No intervening strata capable of confining suggests that the Brunswick formation is at this level. An alternative supply ~~is~~ readily available from Hackensack water supply = (2)

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

~~4 miles (600 m) — From~~

located at Park Ave (Ref. HRS Documentation)

Distance to above well or building:

600 meters from UOP = ~~4~~ = 1968 ft.

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Garfield wells - 11,500
Lodi wells - 25,060

Although discontinuities are discussed in referenced reports - None are explicitly identified as intervening site and wells.

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

Total population served by ground water within a 3-mile radius:

91,500 [Referenced Report] = ~~#~~ 5

8/19/82

Facility Name: Universal Oil Products-Chemical Division (14)

Location: Rt. 17, E. Rutherford, Bergen Co., NJ

EPA Region: II

Person(s) in Charge of the Facility: Anthony Farro (DEP)
Armando Arcenal (DEP)

Name of Reviewer: Richard Katz Date: 8/4/82

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Facility closed + site razed by company in 1980. Specialty chemical operation manufacturing wide variety of hazardous substances. Groundwater and surface water contamination proven by analyses. Numerous enforcement actions taken at state and local levels.

Scores: S_M = 54.63 (S_{gw} = 93.88 S_{sw} = 10.91 S_a = 0)

S_{FE} =

S_{DC} =

Figure 1

HRS COVER SHEET

GROUND WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8	
Total Waste Characteristics Score			26	26	
5 Targets					3.5
Ground Water Use	0 1 (2) 3	3	6	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 (40)	1	40	40	
Total Targets Score			46	49	
6 If line 1 is 45, multiply 1 x 4 x 5. If line 1 is 0, multiply 2 x 3 x 4 x 5			53,820	57,330	
7 Divide line 6 by 57,330 and multiply by 100	S_{gw} = 93.88				

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 (45)	1	45	45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	Route Characteristics					4.2
	Facility Slope and Intervening Terrain	0 1 2 3	1		3	
	1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
	Distance to Nearest Surface Water	0 1 2 3	2		6	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score				15	
3	Containment	0 1 2 3	1		3	4.3
4	Waste Characteristics					4.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8	
	Total Waste Characteristics Score			26	26	
5	Targets					4.5
	Surface Water Use	(0) 1 2 3	3	0	9	
	Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
	Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			6	55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7,020	64,350	
7	Divide line 6 by 64,350 and multiply by 100	S_{SW} = 10.91				

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100	S_a = 0				

	S	S^2 2814.27
Groundwater Route Score (S_{gw})	93.88	8813.45
Surface Water Route Score (S_{sw})	10.91	119.03
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		8932.48
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		94.51
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		$S_M = 54.63$

31.47

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1 *		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 5 by 1,440 and multiply by 100			S_{FE} =		

DIRECT CONTACT WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1	Observed Incident	0 45	1		45	8.1
	If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2	Accessibility	0 1 2 3	1		3	8.2
3	Containment	0 15	1		15	8.3
4	Waste Characteristics Toxicity	0 1 2 3	5		15	8.4
5	Targets					8.5
	Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
	Distance to a Critical Habitat	0 1 2 3	4		12	
	Total Targets Score				32	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	
7	Divide line 6 by 21,600 and multiply by 100 S_{DC} =					

June 28, 1982

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: UNIVERSAL OIL PRODUCTS, CHEMICAL DIVISION

LOCATION: ROUTE 17, EAST RUTHERFORD, BERGEN CO.

Universal Oil Products Corporation Chemical Division located at State Highway 17 in East Rutherford had operated at the site from the early 1950's to 1980. UOP operated this site for the purpose of manufacturing industrial organic chemicals. Two waste lagoons were located in the eastern part of the property. All the residues from its manufacturing operations, waste solvents and solid waste were dumped into this lagoon for 2 decades. The company had very sloppy housekeeping when it was in operation. Spillages w/ pH ranging from <1.0 to 3.0 was noted at the plant during inspection.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Chloroform, Benzene, Acrolein, Toluene
Mercury

Rationale for attributing the contaminants to the facility:

Results of soil boring and water sampling analyses.
[Source: July 2, 1979 sampling results & inspection, DWR.
June 25, 1980 Sampling reports from Betz-Converse-Murdoch, Inc. copies of data appended.
April 9, 1980 Sampling by NJDEP.
Files are available in Reg. 1-Enforcement, DWR, NJDEP in Newark.

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

NA

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

NA

Depth from the ground surface to the lowest point of waste disposal/ storage:

NA

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

NA

Mean annual lake or seasonal evaporation (list months for seasonal):

NA

Net precipitation (subtract the above figures):

NA

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

NA

Permeability associated with soil type:

NA

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

NA

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3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NA

Method with highest score:

NA

(4) WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Acrolein, Chloroform, mercury

Compound with highest score:

Chloroform

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

estimate = 4,505,320 gallons

≈ 81,900 drums

Basis of estimating and/or computing waste quantity:

UOP was known to dump their wastes (chemical) into on site lagoons for 20 years. NJ DEP hazardous waste manifest reporting records indicat that UOP manifested 160,266 gals of ① Ester, alcohol, ketone, glycol residues ② mixed solvents, and ③ other or wastes listed as just hazardous wastes to off site T,S,D Facilities in 1979 when their lagoons were not used. Thirteen shipments we listed as haz. waste with out quantities in this period. These shipm

(continued on back)

were estimated for equal 65,000 gals at estimated 5,000 gals/each shipment. The total of off site disposed waste in 1979 was estimated to be 265,266 gals. These wastes are assumed to have been dumped into UOP's lagoons over a 20 year period thus making the total amount equalling 4,505,320 gals of waste/20 years.

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:
Aquifers of concern are the glacial till and stratified drift. Its uses are for drinking water supply and industrial use for process cooling water.
FROM: "Hydrological Investigation Former UOP Chemical Division Plant Site East Rutherford" by Ground Water Technology July 29, 1981. File located in Region I, Enforcement DRW NJDEP in Newark.

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:
600 meters from UOP. Located at Park Avenue.

Distance to above well or building:
600 meters from UOP.

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:
FIVE (5) Water Supply Wells located in Wallington, N.J. Recently shut-down due to organic contamination. Population served - 11,400 persons.
Source: Borough of Wallington Water Department.

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):
'NA'

Total population served by ground water within a 3-mile radius:
11,400 persons from the Township of Wallington
[From: Wallington Water Department]

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Benzene and Toluene (From July 2, 1979 inspection by DWR)

Rationale for attributing the contaminants to the facility:

Water sampling of Ackerman's Creek, upstream and downstream of UOP. Benzene concentration upstream of the creek is 520 ppb while downstream it is 50,000 ppb.
(Sampling results are in Reg. I - Enforcement, DWR, NJDEP under UOP Files)

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2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

NA

Name/description of nearest downslope surface water:

NA

Average slope of terrain between facility and above-cited surface water body in percent:

NA

Is the facility located either totally or partially in surface water?

NA

Is the facility completely surrounded by areas of higher elevation?

NA

1-Year 24-Hour Rainfall in Inches

NA

Distance to Nearest Downslope Surface Water

NA

Physical State of Waste

NA

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NA

Method with highest score:

NA

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Benzene, Toluene & Chloroform

Compound with highest score:

Chloroform

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

estimated 4.5 million gallons E

Basis of estimating and/or computing waste quantity:

see p.4

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5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

NONE.

Is there tidal influence?

Yes.

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

'NA'

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

UOP plant not located within the wetland (Hackensack River Basin).

From: Carswell, L.D. Appraisal of Water Resources in the Hackensack River Basin, N.J., U.S. Geological Survey Water-Resources Investigation, 74-76, 1976.

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

NONE.

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

NONE

Total population served:

NONE

Name/description of nearest of above water bodies:

Ackerman's Creek passes through the UOP plant. It is a tributary to Berry's Creek, 2000 ft. downstream from the site Berry's Creek joins Hackensack River about 3½ miles downstream

Distance to above-cited intakes, measured in stream miles.

NONE.

1 OBSERVED RELEASE

Contaminants detected:

No Data.

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

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2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi C to 1/2 mi 0 to 1/4 mi

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

June 28, 1982
revised

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

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FACILITY NAME: UOP-Universal Oil Products

LOCATION: Rte 17 E. Rutherford, New Jersey

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Chloroform

Rationale for attributing the contaminants to the facility:

Samplings results from deep production wells at the UOP facility in July, 1981 by NJDEP & UOP. Samples analyzed by Betz, Converse, Murdock (UOP) and Stabler Reutter CDEP.

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2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

—

Depth from the ground surface to the lowest point of waste disposal/ storage:

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Mean annual lake or seasonal evaporation (list months for seasonal):

Net precipitation (subtract the above figures):

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Permeability associated with soil type:

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

chloroform	3	3
Toluene	2	2

Compound with highest score:

chloroform

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Based on UOP's comments, page 5; hazardous material constituted .01% of total wastes which represents 1000 drums. A linear extrapolation of total waste volume would be many times in excess of 10,000 drums

Basis of estimating and/or computing waste quantity: Score: 8

* * *

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:
drinking water / industrial - from Brunswick Formation

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

located at Park Avenue

Distance to above well or building:

600 meters from UOP = 1968 ft.

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Garfield - 11,500
Lodi - 25,000

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None

Total population served by ground water within a 3-mile radius:

36,500

Same as Orginals. Mitre

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Rationale for attributing the contaminants to the facility:

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2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Name/description of nearest downslope surface water:

Average slope of terrain between facility and above-cited surface water body in percent:

Is the facility located either totally or partially in surface water?

Is the facility completely surrounded by areas of higher elevation?

1-Year 24-Hour Rainfall in Inches

Distance to Nearest Downslope Surface Water

Physical State of Waste

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Compound with highest score:

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Is there tidal influence?

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

Total population served:

Name/description of nearest of above water bodies:

Distance to above-cited intakes, measured in stream miles.

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

* * *

2 WASTE CHARACTERISTICS

<u>Reactivity and Incompatibility</u>

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?